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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,884	10/12/2006	Takenobu Sunagawa	063129	5991

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EXAMINER

LENIHAN, JEFFREY S

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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08/21/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No. 10/599,884	Applicant(s) SUNAGAWA ET AL.	
	Examiner Jeffrey Lenihan	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9 and 11-23 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the amendment filed on 05/22/2009.
2. The objections and rejections not addressed below are deemed withdrawn.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Objections

4. Claims 4 and 5 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.
5. Claims 4 and 5 both depend from claim 1, and both state that the polymer particles have a weight average molecular weight (M_w) in the range of 40,000 to 150,000 and are prepared by suspension polymerization of combinations of three monomer components (a), (b), and (c), wherein the sum of (a)-(c) is 100% by weight. Claim 1, however, requires that the polymer particles have a minimum M_w of 50,000 and comprise only monomers (a) and (b), wherein the sum of (a) and (b) is 100% by weight. The claims 4 and 5 therefore impermissibly broaden the scope of the parent claim with regards to M_w and the number of monomers used to prepare the polymer particles. For the purposes of examination on the merits, claims 4 and 5 have been treated as independent claims containing all the limitations of claim 1 except the monomer composition and molecular weight range.

Claim Rejections - 35 USC § 103

6. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi et al, JP 10265636.

The rejection stands as per the reasons outlined in the previous Office Action, incorporated herein by reference.

7. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al, WO 03/093353 (of record), in view of in view of Doi et al, JP 10265636 (of record). Ueda et al, US2004/0161607 (Ueda '04), has been used herein as an equivalent English translation of WO 03/093353.

The rejection of claims 4 and 5 stands as per the reasons outlined in the previous Office Action, incorporated herein by reference. Regarding claims 1, 2, and 6-9, the examiner notes that newly amended claim 1 now contains the limitations previously recited in the now-cancelled claim 3. The claims are therefore rejected as per the reasons outlined in the previous Office Action, incorporated herein by reference.

8. Claims 1, 2, 4-9, 11, 14, 15, 17, 18, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakada et al, JP 2001-098145, in view of Ueda et al, WO 03/093353 and Doi et al, JP 10265636.

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The disclosures of the applied references are discussed in the previous Office Action. The claims are rejected as per the reasons outlined in the previous Office Action, incorporated herein by reference.

9. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Nakada et al, JP 2001-098145, Ueda et al, WO 03/093353, and Doi et al, JP 10265636, as applied to claim 11 above, and further in view of Meyer et al, US5854346.

The disclosures of the applied references are discussed in the previous Office Actions. The rejection is based on the same rationale previously used to combine Nakada and Ueda with Meyer, incorporated herein by reference.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Nakada et al, JP 2001-098145, Ueda et al, WO 03/093353, and Doi et al, JP 10265636, as applied to claim 11 above, and further in view of Yoshida et al, US6235825.

The disclosures of the applied references are discussed in the previous Office Actions. The rejection is based on the same rationale previously used to combine Nakada and Ueda with Yoshida, incorporated herein by reference.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Nakada et al, JP 2001-098145, Ueda et al, WO 03/093353, and Doi et

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al, JP 10265636, as applied to claim 11 above, and further in view of Kuroda et al, US5786408.

The disclosures of the applied references are discussed in the previous Office Actions. The rejection is based on the same rationale previously used to combine Nakada and Ueda with Kuroda, incorporated herein by reference.

Response to Arguments

12. The rejection of claims under 35 U.S.C. 102(a) as being anticipated by Ueda et al, WO 04/076538, has been withdrawn in view of applicant's amendment to independent claim 1.

13. Applicant's arguments filed 5/22/2009 have been fully considered but they are not persuasive.

14. With regards to rejections over Doi, JP10265636, applicant argues that the claimed invention is not obvious over Doi because none of the examples of Doi disclose the use of glycidyl methacrylate, that component B of Doi is a monomer mixture rather than an emulsion polymer, and that Doi is directed towards the field of aqueous coating compositions rather than viscosity modifiers and is therefore non-analogous art.

15. Applicant also appears to argue that the weight average molecular weight (Mw) of Doi does not correspond to that of the claimed invention; however, as stated by applicant in page 9, paragraph 3 of the remarks, Doi teaches that the Mw is 50,000 or less. This range overlaps the claimed ranges of 50,000 to 400,000 (claim 1) and 40,000 to 150,000 (claims 4, 5). "In the case where the claimed ranges overlap or lie inside

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ranges disclosed by the prior art, a *prima facie* case of obviousness exists," *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (MPEP § 2144.05[R-5]). It would therefore have been obvious to make a polymer having the claimed Mw.

16. Regarding component B, the examiner notes that Doi teaches that component B is polymerized in emulsion form in the presence of component A (abstract; ¶¶0036-0040). Emulsion polymerization of B in the presence of component A would result in the formation of a coating of an emulsion polymer on the surfaces of the particles of component A.

17. It has been held that "a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments," *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.). "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments," *In re Susi* 440 F.2d 442, 169 USPQ 423 (CCPA 1971). (MPEP § 2123 [R-5]). The examiner therefore takes the position that the mere absence of the use of glycidyl methacrylate in the Examples of Doi does not negate the reference's broader disclosure which states that it may be used.

18. In response to applicant's argument that Doi is non-analogous art, the examiner takes the position that the referring to the invention as a "viscosity modifier for a thermoplastic polyester resin" in the claims defines an intended use of the claimed composition. A recitation of the intended use of the claimed invention must result in a

structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The examiner takes the position that applicant has not demonstrated that the prior art composition of Doi would not be capable of acting as a viscosity modifier.

19. Regarding the rejection of claims over Ueda, WO 03/093353, in view of Doi, JP10265636, the examiner notes that applicant's arguments regarding the use of glycidyl methacrylate and Mw are not persuasive per the same reasons outlined previously with regards to Doi. Similar arguments also apply to the rejection of claims over Nakade in combination with other references.

Allowable Subject Matter

20. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

21. The following is a statement of reasons for the indication of allowable subject matter: The instant claim recites the limitation that the emulsion polymer which is coated onto the suspension polymer is a core/shell graft copolymer having the following three-layer structure: 40 to 90 parts by weight (pbw) of a core having a recited monomeric composition, 5 to 40 pbw of an inner layer shell having a recited monomeric composition, and 5 to 20 pbw of an outer layer shell having a recited monomeric composition. The prior art of record does not teach nor does it fairly suggest coating a

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suspension particle with a core/shell copolymer defined by the recited combination of limitations.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Lenihan whose telephone number is (571)270-5452. The examiner can normally be reached on Monday through Thursday from 7:30-5:00 PM, and on alternate Fridays from 7:30-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/
Primary Examiner, Art Unit 1796

Jeffrey Lenihan
Examiner, Art Unit 1796

/JL/